

CLAIMS

1. A pre-filled hypodermic syringe adapted for use with a retractable-type needle unit, the syringe having a barrel provided with a piston member which includes a plastics portion mounting a dislodgeable blocking portion of chemically inert material in such a way that the plastics portion is not in contact with the pre-filled contents of the syringe.
2. A fluid-handling device comprising a barrel having a closable dispensing outlet at one end, and a piston member insertable into the barrel to form forwardly thereof a chamber within the barrel which can be pre-filled with the component to be dispensed, movement of the piston member towards the dispensing outlet being effective to force the chamber contents, in use, through the dispensing outlet when open, the piston member comprising a rim portion, a blocking portion mounted by the rim portion and severable from the latter, and a seal for making sealing engagement with the internal wall of the barrel, the arrangement being such that the rim portion is not exposed to the contents of said chamber and the forward side of blocking portion is presented within the chamber for co-operation with a retractable-type needle unit when fitted to the forward end of the barrel.
3. A fluid-handling device according to claim 2, wherein at least partial severance of the blocking portion from the rim portion during needle retraction allows the needle to pass through the piston member and fully enter the barrel.
4. A fluid-handling device according to claim 2 or claim 3, wherein the rim

portion is of a plastics material.

5. A fluid-handling device according to claim 4, wherein the piston member comprises a blocking portion provided with an overmoulded rim portion.

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6. A fluid-handling device according to claim 5, wherein the overmoulded rim portion is formed by an insert moulding technique in which the rim portion is moulded around an insert formed by the blocking portion.

10 7. A fluid-handling device according to claim 2, wherein the blocking portion and the rim portion are engaged with one another in such a way that the blocking portion is severed or dislodged from the rim portion upon application of an appropriate axial force.

15 8. A fluid-handling device according to claim 7, wherein the axial force is exerted by the retractable needle driven by a biasing element following administration of an injection.

9. A fluid-handling device according to any of claims 2 to 8, wherein the
20 forwardly facing surface of the rim portion is covered by a material that is acceptable for long term contact with the component to be stored.

10. A fluid-handling device according to claim 9, wherein the material covering the rim portion may be formed by an integral extension of the seal.

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11. A fluid-handling device according to claim 10, wherein the rim portion may be in the form of a sleeve receiving the blocking portion and the arrangement is such that the covering material overlies the forward end of the sleeve to prevent
5 contact with the chamber contents.

12. A fluid-handling device according to any of claims 2 to 11, wherein the rim portion includes an annular section having a perimetral groove for location of the seal.

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13. A fluid-handling device according to any of claims 2 to 12, wherein forward movement of the piston member within the barrel is effected by a rod that is separate from the piston member.

15 14. A fluid-handling device according to claim 13, wherein the rim portion is adapted to locate the forward end of the rod.

15. A fluid-handling device according to claim 13 or claim 14, wherein the arrangement is such that when the dispensing stroke of the rod has been
20 completed, its rear end is rendered substantially inaccessible or captive with the barrel.

16. A fluid-handling device according to claim 15, wherein the rear end of the rod is provided with a head against which thumb pressure may be applied during
25 the dispensing stroke and, upon completion of the dispensing stroke, the head

engages in a retainer provided at the rear end of the barrel

17. A fluid-handling device according to claim 16, wherein co-operating
formations are provided on the head and/or the retainer to prevent withdrawal of
5 the head from the retainer.

18. A fluid-handling device according to any of claims 13 to 17, wherein the rod
is hollow so that the needle can enter into its interior following triggering of needle
retraction.

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19. A fluid-handling device according to any of claims 2 to 18, wherein the
needle unit is adapted to make snap fit engagement with the dispensing outlet of
the barrel.

15 20. A fluid-handling device according to any of claims 2 to 19, wherein the
dispensing outlet may be a necked down part of the barrel.

21. A fluid-handling device according to any of claims 2 to 20, wherein the
needle unit includes a coupling member for engagement with the dispensing outlet
20 of the barrel.